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SALT

by

GWEN CROSS

THINGS WE USE

BOOK EIGHTEEN

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CHAPTER 1

HOW SALT IS USED

OUR bodies need salt. We cannot live without it. Animals also need salt. Horses, goats, sheep and cattle will lick rocks that have a salt taste. Men have always traded with salt. Long ago they went long journeys to buy or sell it. The people of Venice did a big trade in salt.



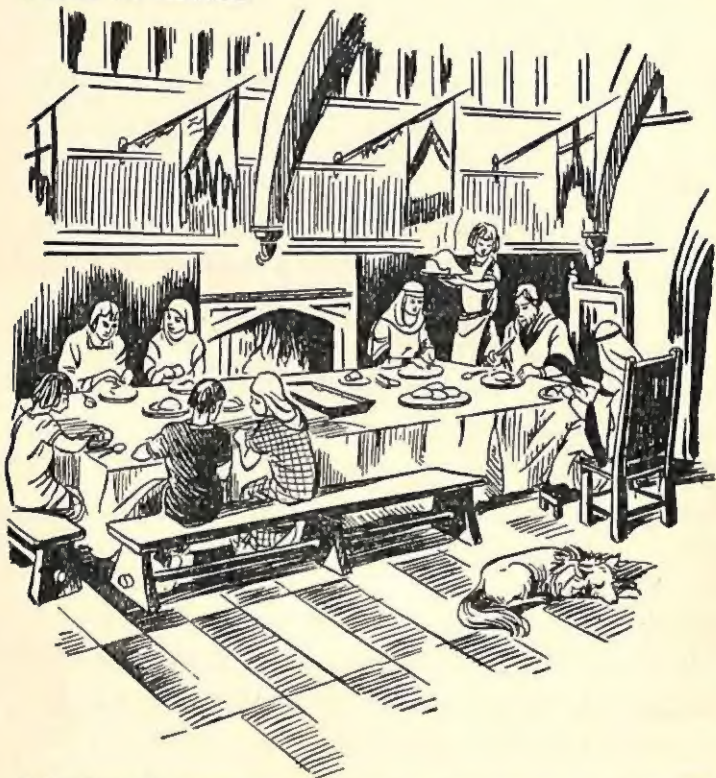
A RHINOCEROS LICKING SALT FROM THE GROUND

Salt has often been used in place of money. In the Middle Ages, 700 years ago, men and cities paid taxes to kings with salt. When kings gave presents to one another, they always gave some salt. Men dug salt from the ground in Europe 2,000 years before Christ was born. In hot countries they made it from sea water.



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To eat salt with someone is a sign of friendship. Among the Arab people in the desert, to eat salt with another man was a sign of friendship. Even if that man was an enemy, this was a sign that they would be friends.



AN ENGLISH FAMILY AT A MEAL ABOUT 500 YEARS AGO. THE SALT IS IN THE MIDDLE OF THE TABLE. IN THOSE DAYS THE FAMILY SAT AT THE HEAD OF THE TABLE, ABOVE THE SALT. THE SERVANTS SAT BELOW THE SALT.

HOW SALT IS USED

In some countries people think a man rich if he has much money. In others they think him rich if he has many sheep, cattle or pigs. In parts of Africa and Arabia men think a man rich if he has enough salt to eat every day. This is because there is very little salt in these places. In Africa men have travelled for many days to get salt.

We read about salt in the Bible and in many old books. The people of Israel were told by God to give salt with all their gifts to Him. We also read that they ate salt with their food. Salt gives a good taste to food. It is good to cook salt or a little sea water with our food.

Salt is also used in many lands to preserve food. Preserve means to keep good. Fish, meat, cheese and eggs packed in salt will keep good a long time. Meat will also keep good if it has been cooked in brine and then kept in brine. Very strong salt water is called brine.

THINGS TO DO

1. Find and read these verses in your Bible: Leviticus 2 v. 13. Job 6 v. 6. S. Matthew 5 v. 13. Learn the last one by heart.

2. Take two small pieces of meat or two of cheese. Put one piece of meat (or cheese) on a plate in the cupboard. Rub salt into the other and

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cover it with salt. Which keeps good the longer time?

QUESTIONS

1. Where does the salt that you eat come from?
 2. Name two things that we can preserve in salt.
 3. What is brine?
 4. In what country is it a sign of friendship to eat salt with a man?
- A. Write the singular of these words:

bodies sheep journeys cities taxes

Write a sentence using one of these words in the singular, and another using one in the plural.

B. Put the beginning of sentences in (1) with the right endings in (2).

| (1) | (2) |
|----------------------------|------------------------------------|
| To eat salt with a man | give salt with their gifts to Him. |
| Our bodies | like to lick salt rocks. |
| Sheep | is a sign of friendship. |
| God told the Israelites to | need salt. |

C. Put one or more letters in each of these words to make another word:

sin red man by sat

CHAPTER 2

HOW ROCK SALT IS MADE

MEN find layers of rock salt deep in the ground. It is hard and red or brown. It was made very long ago under the sea.

Every time rain falls, some salt in the soil will dissolve in the water. It goes into the sea through the soil, or it flows out of the soil in rivers. These rivers carry to the sea mud, sand, and stones, and many things like salt, dissolved in the water, that we cannot see.

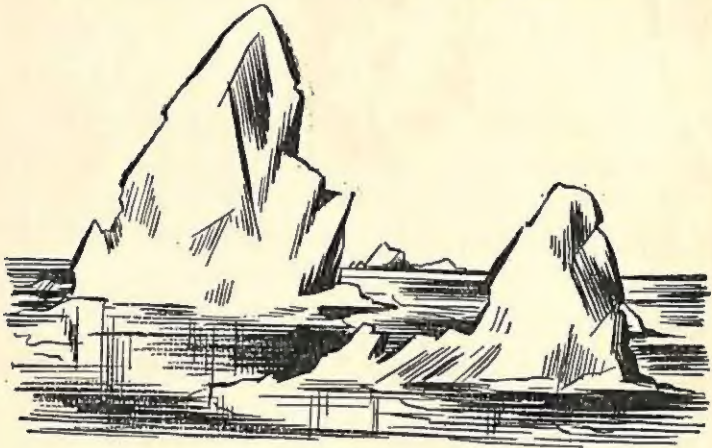
If we put sea water in a tin and stir in salt, the salt will dissolve. If we put in more salt, soon some of it will not dissolve. It will sink to the bottom of the tin. Again, if we put sea water in the sunshine, the water will dry up, and salt will stay in the tin.

When sea water dries up (evaporates) in sunshine and wind, the salt stays in the sea. That is why sea water is salt. At the Equator there is little of this drying up because there are too many clouds and too much rain. There is no wind, and the air is calm; and so the sea is less salty there than in any other part of the world.

The sea in cold places is more salt than at the Equator but it is not very salt. The sun is not hot

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enough to dry up much water. Ice and icebergs melt and put more fresh water into the sea.



ICEBERGS

The sea is very salty in the Tropics because very much water is dried up by the hot sun and strong winds. The most salt sea in the world is the Dead Sea. It is so salty that no fish can live in it, and no birds or plants can live near it. It is at the bottom of a very hot valley. There is much evaporation and no rain. There is salt on the shore of the Dead Sea.

In some parts of the world earthquakes have pushed up the mixture of salt, sand, and mud from the bottom of the sea. The bottom of the sea has become dry land and there is a layer of salt in the ground. It has been pressed hard to make rock salt.

HOW ROCK SALT IS MADE



THINGS TO DO

1. Read paragraph 3 again. Take two tins of the same size. Put sea water in one and fresh water in the other. Dissolve the same amount of salt into each. How much can you put into each before salt sinks to the bottom? The water then has as much salt in it as it will hold. Pour off the salt water carefully into another tin. Let it evaporate in the

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sun or over a fire. Taste the white salt which stays in the tin.

2. On a map find these seas:

Coral Sea, North Sea, Arctic Ocean, Red Sea, Baltic Sea.

In which of these seas is the water most salt? Least salt?

QUESTIONS

1. What country is west of the Dead Sea?
2. Why is it called the Dead Sea?
3. Why is sea water not very salty at the Equator?
4. What colour is rock salt?

A. Finish these sentences:

(a) At the Equator there
are strong winds.
are icebergs.
is a belt of calm.

(b) In the Dead Sea there
is much salt.
are many fish.
is beautiful coral.

B. Put one of these words in each of these sentences:

more *most* *less* *least*

- (a) There is . . . snow in Africa than in Russia.
- (b) There is . . . salt in the Dead Sea than the Mediterranean Sea.
- (c) The sea at the Equator is . . . salt.
- (d) The sea in the Tropics is . . . salt.

C. Make as many words as you can using only the letters in the word "evaporation."

CHAPTER 3

HOW MEN GET ROCK SALT FROM THE GROUND

IN some countries men dig rock salt in mines. In other countries they pump up salt water as they pump up oil.



THE UNDERGROUND RAILWAY IN THE POLISH
SALT MINES

The most wonderful salt mines in the world are in Poland. The layer of rock salt there is 4,000 feet deep in the ground. Men do not dig out all the rock salt. They let columns of salt stay to hold up the ground. They have made houses, stores,

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churches, roads, a railway and a cathedral down in the ground. The tunnels are seventy miles long. There is a salt river and a salt lake there. The town has electric lights. When the light is shining the salt walls of the houses shine also.



IN A SALT MINE IN CHESHIRE, ENGLAND

In some countries men do not dig for rock salt. There is always a salt lake under the ground near rock salt. Machines make a deep hole (or "bore") and put in a pipe. This hole is called a bore. Men pump the salt water up the pipe. If there is not enough salt water they pump down fresh water. Later they pump this water up again. It has dissolved rock salt and is now brine.

ROCK SALT FROM THE GROUND

The brine flows into tanks. It is made hot and the water evaporates. The salt stays in the tanks. It is clean and white. It is packed in sacks, bottles, packets, and tins.

When men pump salt water from the ground or dissolve the rock salt in water, big holes are made under the ground. Men cannot go down to put up posts as they do in coal mines. They cannot get up brine in such a way that columns of rock salt remain. Sometimes the ground over a rock salt bore begins to sink.

The ground above the salt mines at Northwich in England is sinking. The houses which are built



CROOKED HOUSES BUILT ON SINKING GROUND OVER A SALT MINE



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second pan. More water evaporates. The water becomes more salty again. In the last pan the water is very salty. When all the water has evaporated a thick layer of salt, sometimes one foot thick, stays in this pan.

People take wooden rakes and spades to collect the salt in heaps. It dries in the sunshine. Carts carry it away to factories. There it is made clean and pure. It is dissolved again in tanks and made hot and the water evaporates. The salt stays. If men stir the salt water until all the water has evaporated, very fine salt collects in the tank. This is put into packets. It is called table salt. It is finer than cooking salt.

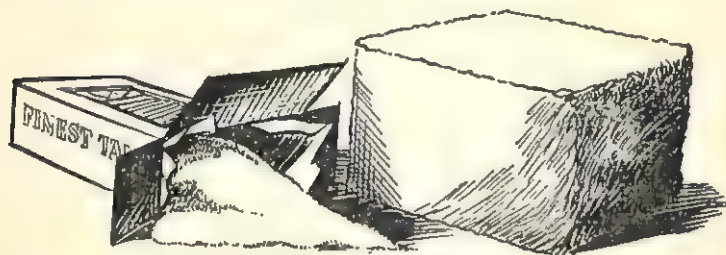
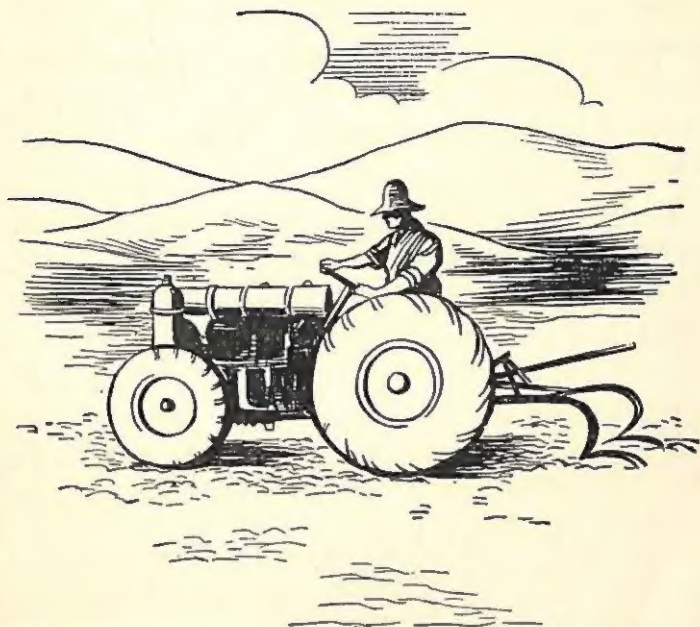


TABLE SALT AND COOKING SALT

Cooking salt is often made in blocks. The brine flows into small tanks. All the water evaporates and the salt takes the shape of the tank and makes a hard block.

SALT FROM THE SEA



PLOUGHING SALT FROM THE SALT DESERT IN U.S.A.

In U.S.A. there is a large salt desert. It is east of the Rocky Mountains. No plants grow there, nor can animals live there. Long ago there was a salt lake in this place. The water evaporated and a thick layer of salt stayed on the ground. Now men plough this salt, rake it in heaps, put it on lorries, and send it to the factories. From there it goes to many parts of America.

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THINGS TO DO

1. Put some salt in a small tin and some in a glass bottle. Leave them for a few days. What happens to the salt in the tin? Why do men dig salt with wooden spades?

2. On a map of North America find U.S.A., the Great Salt Desert, Salt Lake, Salt Lake City. From Salt Lake City follow the railway line that carries salt away to San Francisco and Chicago.

QUESTIONS

1. What is a salt-pan?

2. In which salt-pan do men collect salt?

3. Is it cheaper to get salt from the sea or from the ground?

4. Read again the last paragraph. Say how the Great Salt Desert was made long ago.

A. Add *-est* to these words:

| | | | |
|--------------|---------------|-------------|--------------|
| <i>cheap</i> | <i>strong</i> | <i>tall</i> | <i>old</i> |
| <i>easy</i> | <i>lazy</i> | <i>busy</i> | <i>heavy</i> |

B. Make adjectives from:

| | | | | |
|-------------|-------------|---------------|------------|-------------|
| <i>wood</i> | <i>wool</i> | <i>beauty</i> | <i>rot</i> | <i>sand</i> |
|-------------|-------------|---------------|------------|-------------|

Write a sentence using one of these adjectives.

C. Finish these sentences:

- (a) In the Great Salt Desert there are
many towns.
many animals.
no plants.

- (b) Table salt is
red or brown.
a hard block.
fine and white.

You may find these words difficult. When you meet them in the book try to think out for yourself what they mean. If you cannot do this ask your teacher for help.

Nouns

brine
column
evaporation
iceberg
salt-pan
taste

Adjectives

electric
wooden

Verbs

preserve



Things We Use Series

1. A Packet of Tea
2. A Pound of Sugar
3. A Loaf of Bread
4. A Sack of Rice
5. A Tin of Salmon
6. A Tin of Meat
7. A Tin of Milk
8. A Tin of Butter or Cheese
9. A Woollen Blanket
10. Cotton and Other Threads
11. A Bar of Soap
12. A Packet of Needles
13. Oil
14. A Lead Pencil
15. Paper and Books
16. Money
17. A School Rubber
18. Salt
19. Glass and Plastics
20. Tin
21. A Cup of Coffee
22. A Bar of Chocolate
23. Silk
24. Leather

